Data Collection and Image Preprocessing:

```
import keras
from keras.preprocessing.image import ImageDataGenerator
import matplotlib.pyplot as plt
import numpy as np
batch\_size = 32
train_datagen = ImageDataGenerator(
  shear_range=0.2,
  rotation_range=180,
  zoom_range=0.2,
  horizontal_flip=True,
)
val_datagen = ImageDataGenerator(
  rescale=1./255
)
train_generator = train_datagen.flow_from_directory(
  'train_set/',
  target_size=(150, 150),
  batch_size=batch_size,
  class_mode='binary'
)
val_generator = val_datagen.flow_from_directory(
  'test_set/',
  target_size=(150, 150),
  batch_size=batch_size,
  class_mode='binary'
)
Output:
Found 435 images belonging to 2 classes.
Found 121 images belonging to 2 classes.
```